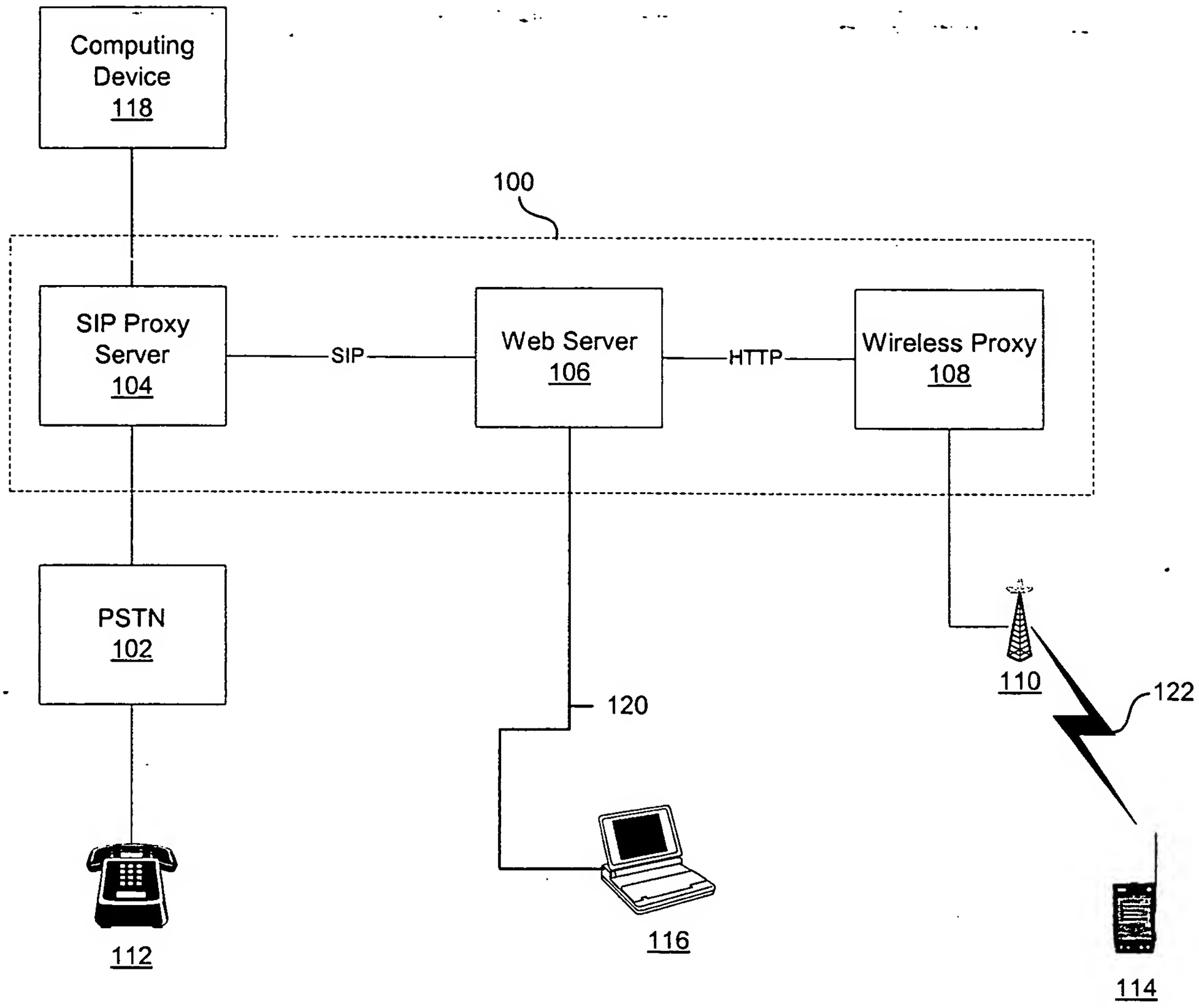

Computing Device 118
100
SIP Proxy Server 104
SIP
Web Server 106
HTTP
Wireless Proxy 108
PSTN 102
120
110
122
112
116
114

Figure 1

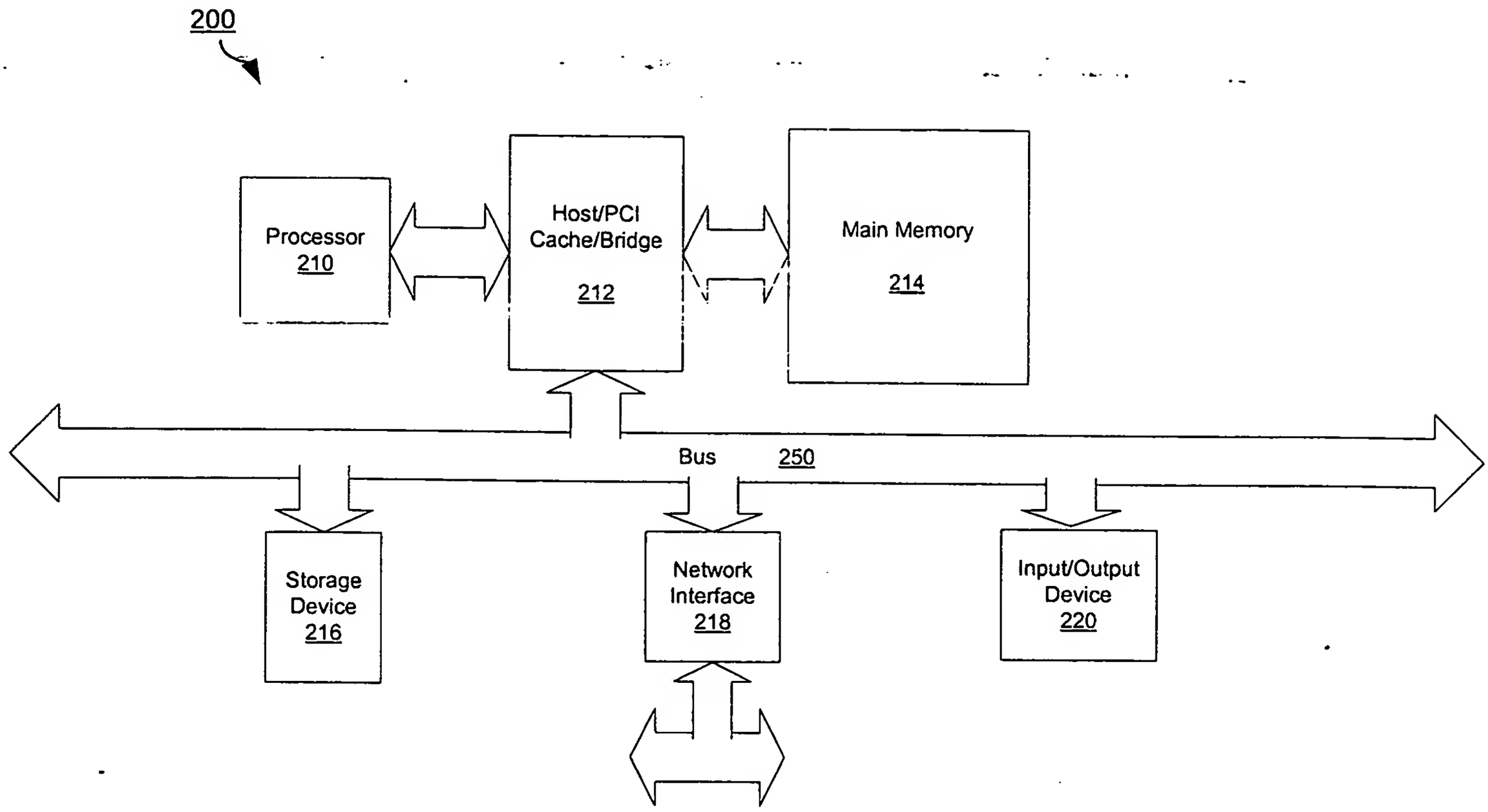
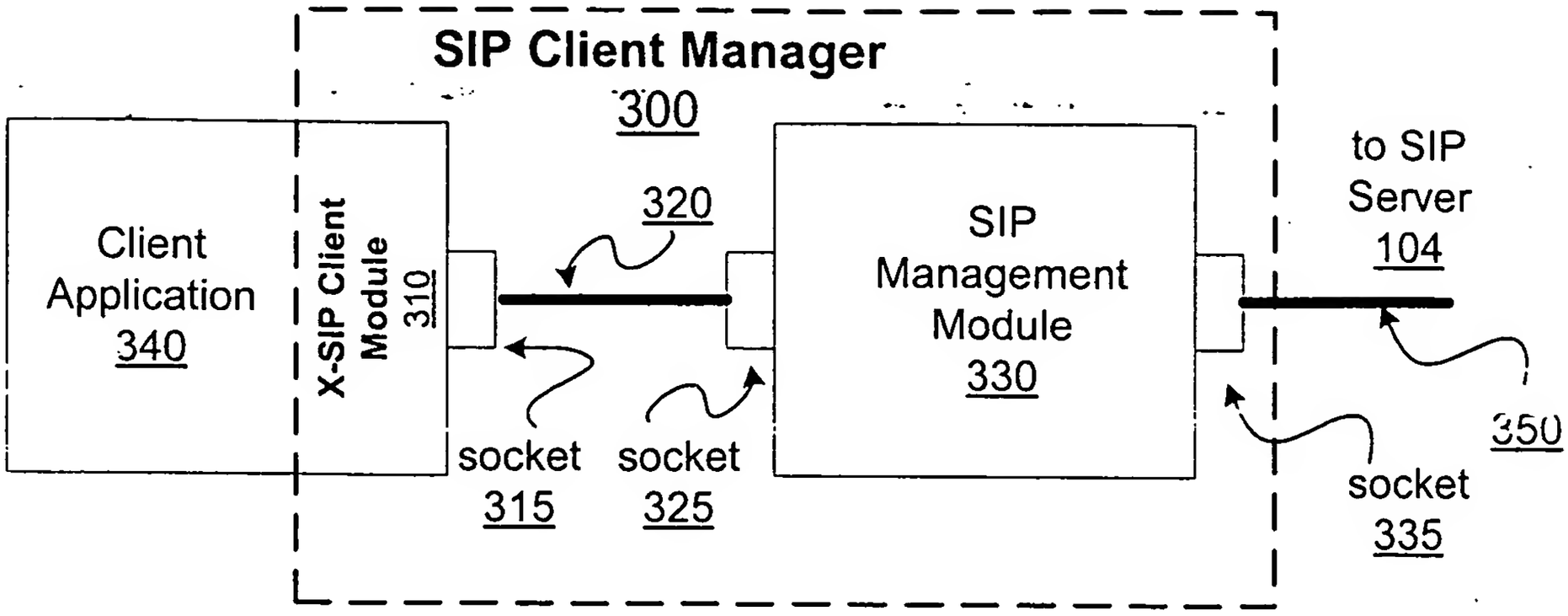

200
Processor
210
Host/PCI
Cache/Bridge
212
Main Memory
214
Bus
250
Storage
Device
216
Network
Interface
218
Input/Output
Device
220

Figure 2

Figure 3


SIP Client Manager
300
Client Application 340
X-SIP Client Module 310
320
SIP Management Module 330
to SIP Server 104
socket 315
socket 325
socket 335
350

400

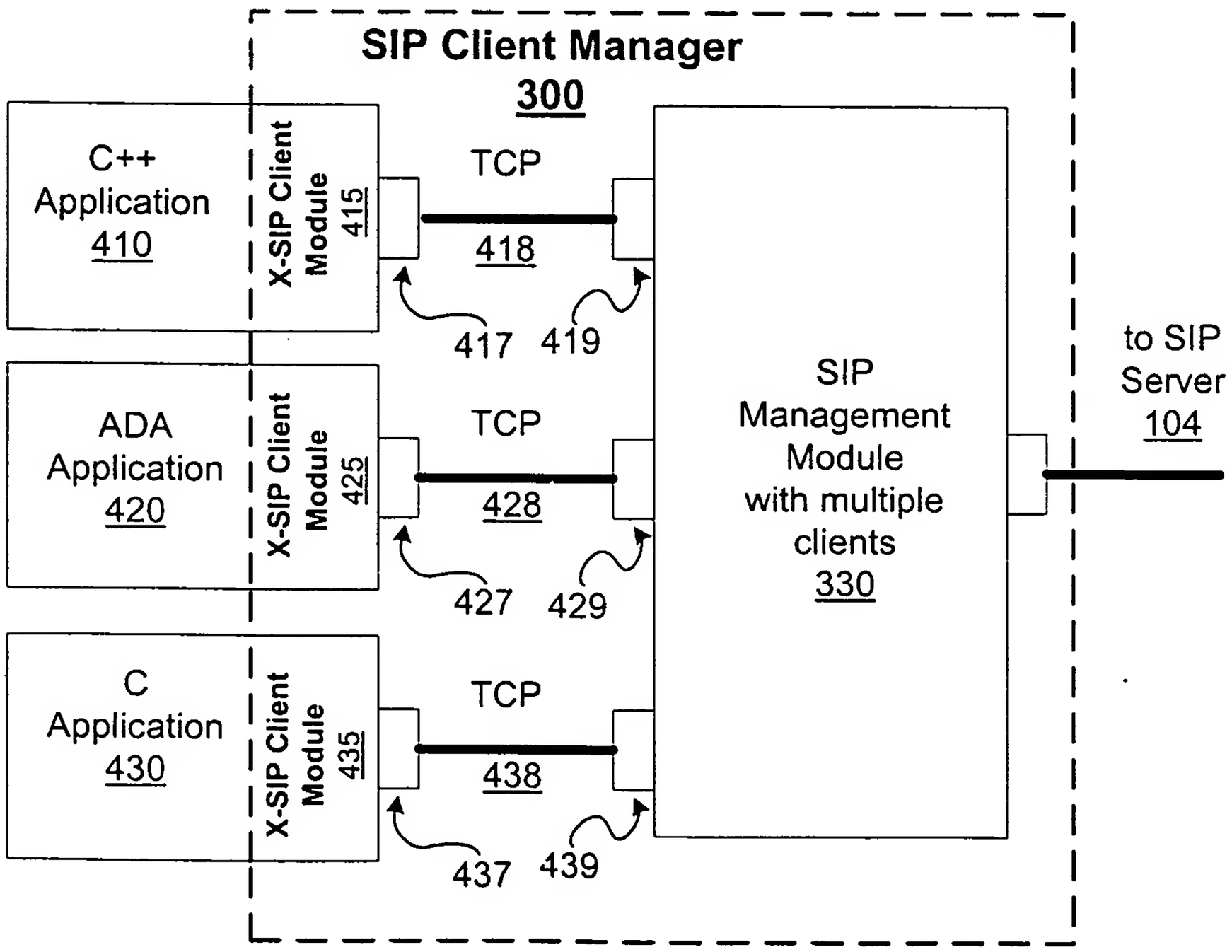

SIP Client Manager
300
C++ Application 410
X-SIP Client Module 415
TCP
418
417
419
ADA Application 420
X-SIP Client Module 425
TCP
428
427
429
C Application 430
X-SIP Client Module 435
TCP
438
437
439
SIP Management Module with multiple clients 330
to SIP Server 104

Figure 5

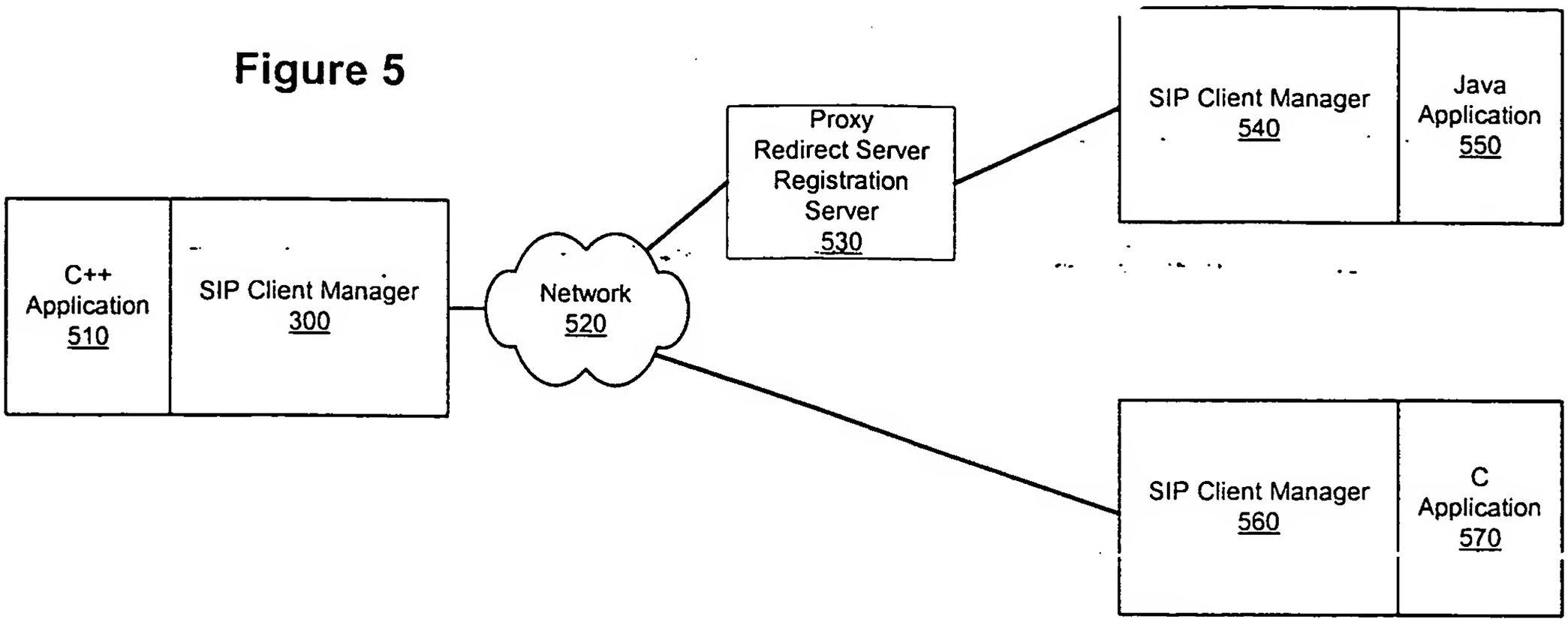


Figure 6

11119 RR
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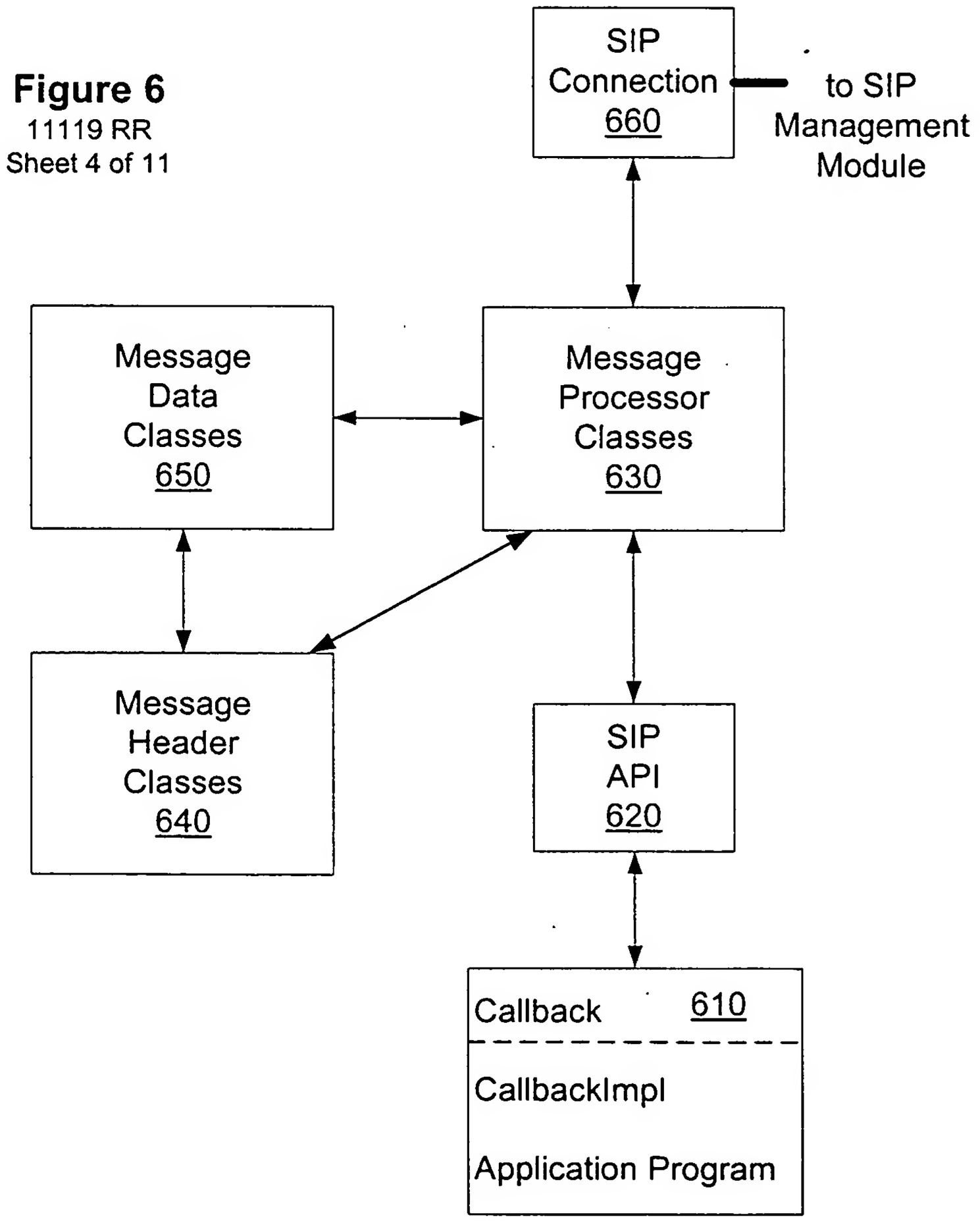
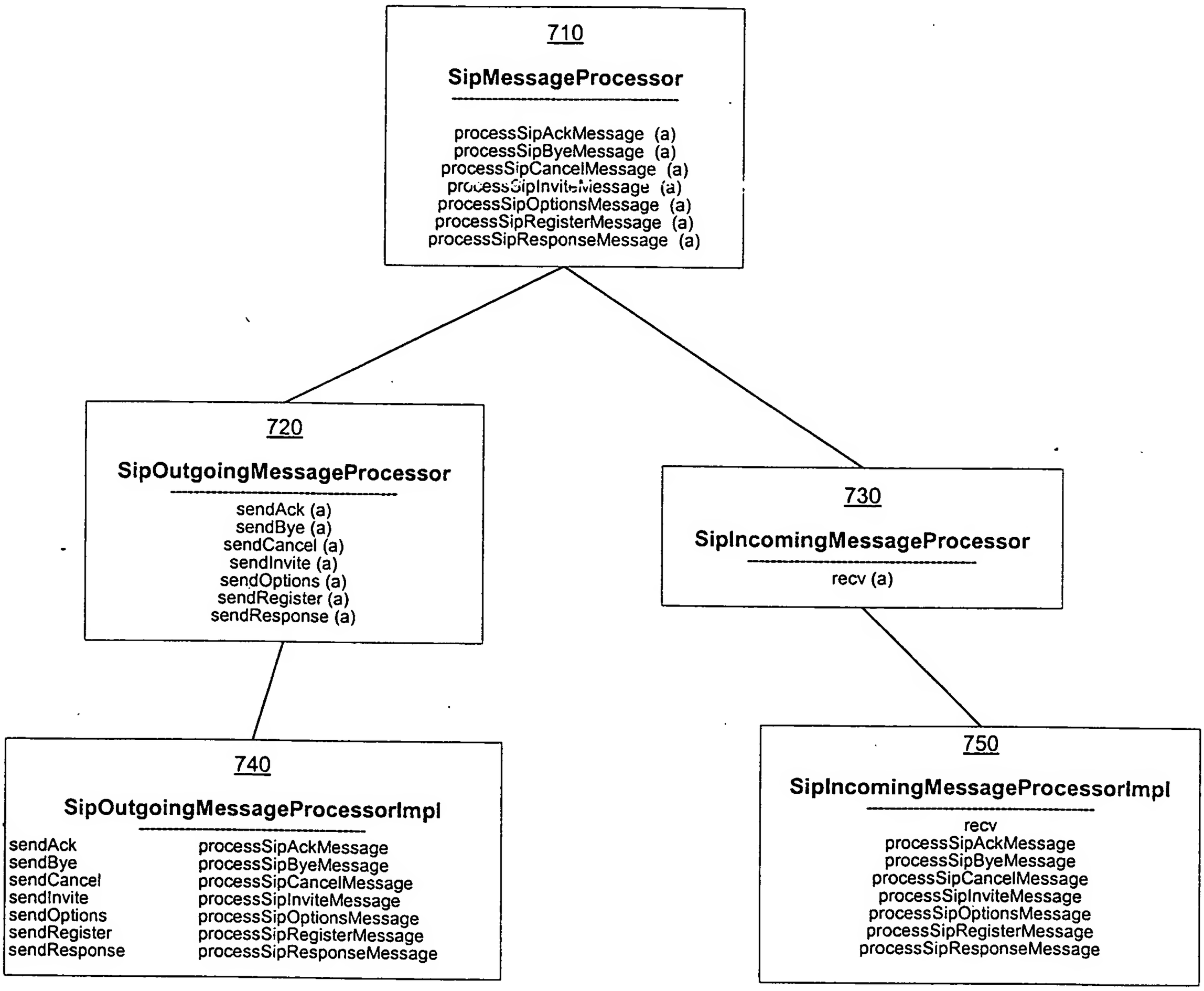


Figure 7


710
SipMessageProcessor
processSipAckMessage (a)
processSipByeMessage (a)
processSipCancelMessage (a)
processSipInviteMessage (a)
processSipOptionsMessage (a)
processSipRegisterMessage (a)
processSipResponseMessage (a)
720
SipOutgoingMessageProcessor
sendAck (a)
sendBye (a)
sendCancel (a)
sendInvite (a)
sendOptions (a)
sendRegister (a)
sendResponse (a)
730
SipIncomingMessageProcessor
recv (a)
740
SipOutgoingMessageProcessorImpl
sendAck processSipAckMessage
sendBye processSipByeMessage
sendCancel processSipCancelMessage
sendInvite processSipInviteMessage
sendOptions processSipOptionsMessage
sendRegister processSipRegisterMessage
sendResponse processSipResponseMessage
750
SipIncomingMessageProcessorImpl
recv
processSipAckMessage
processSipByeMessage
processSipCancelMessage
processSipInviteMessage
processSipOptionsMessage
processSipRegisterMessage
processSipResponseMessage

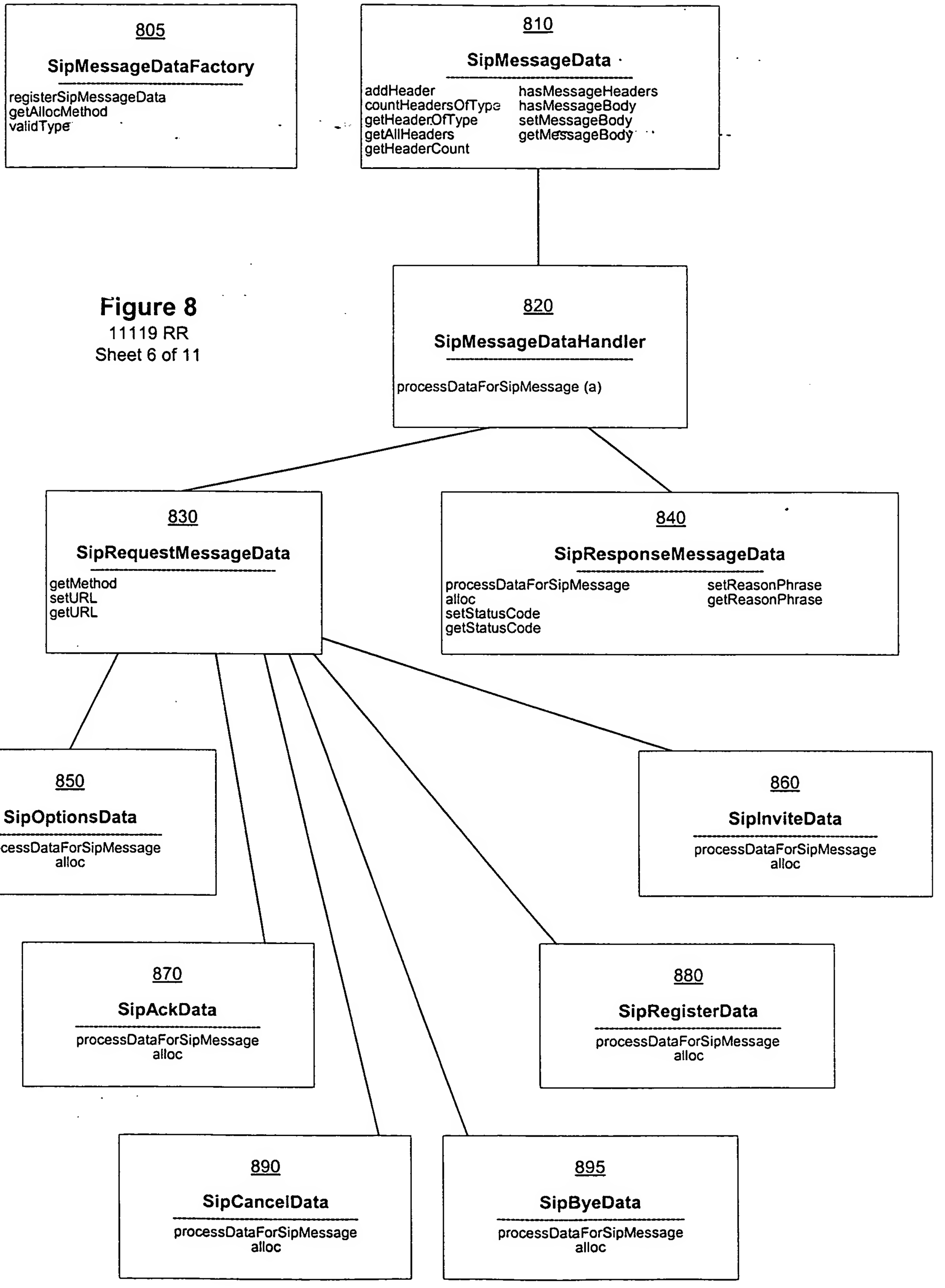


Figure 8

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Figure 9

905

SipHeaderFactory

registerSipHeader
getAllocMethod
validType
getTypeDelimiter
Instance

910

Header

getHeaderType

920

SipHeader

parse (a)	isParsed
getType (a)	validate (a)
toString (a)	toXmitString

930

SipXSipHeader

alloc	parse
getType	toString
validate	
setMethod	getMethod
setURI	getURI
setStatusCode	getStatusCode
setReasonPhrase	getReasonPhrase

940

SipCSeqTypeHeader

alloc	parse
getType	toString
validate	
setMethod	getMethod
setCseqNum	getCseqNum

950

SipCallIDHeader

alloc	parse
getType	toString
validate	
setCallID	getCallID
setLocalID	getLocalID
setHost	getHost

960

SipFromHeader

alloc	parse
getType	toString
validate	
setTag	getTag
setNameAddr	getNameAddr

970

SipToHeader

alloc	parse
getType	toString
validate	
setTag	getTag
setNameAddr	getNameAddr

980

SipContentLengthHeader

alloc	parse
getType	toString
validate	
setMessageBodyLength	
getMessageBodyLenght	

990

SipContentTypeHeader

getCanonicalType	parse
getType	toString
validate	
setContentType	getContentType

995

SipContactHeader

getCanonicalType	parse
getType	toString
validate	getContact
setContact	hasContacts
hasWildcard	

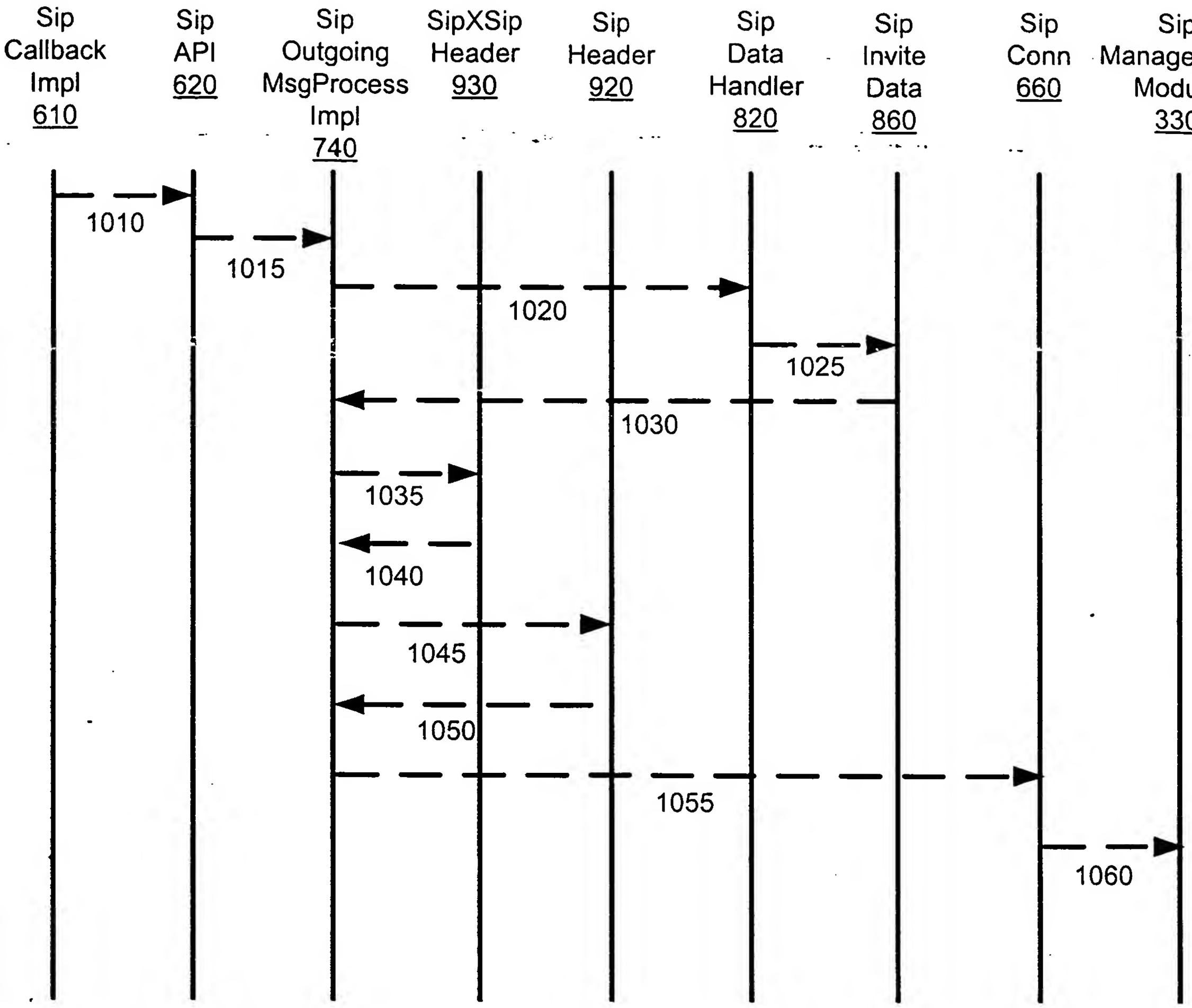

Figure 10

11119 RR

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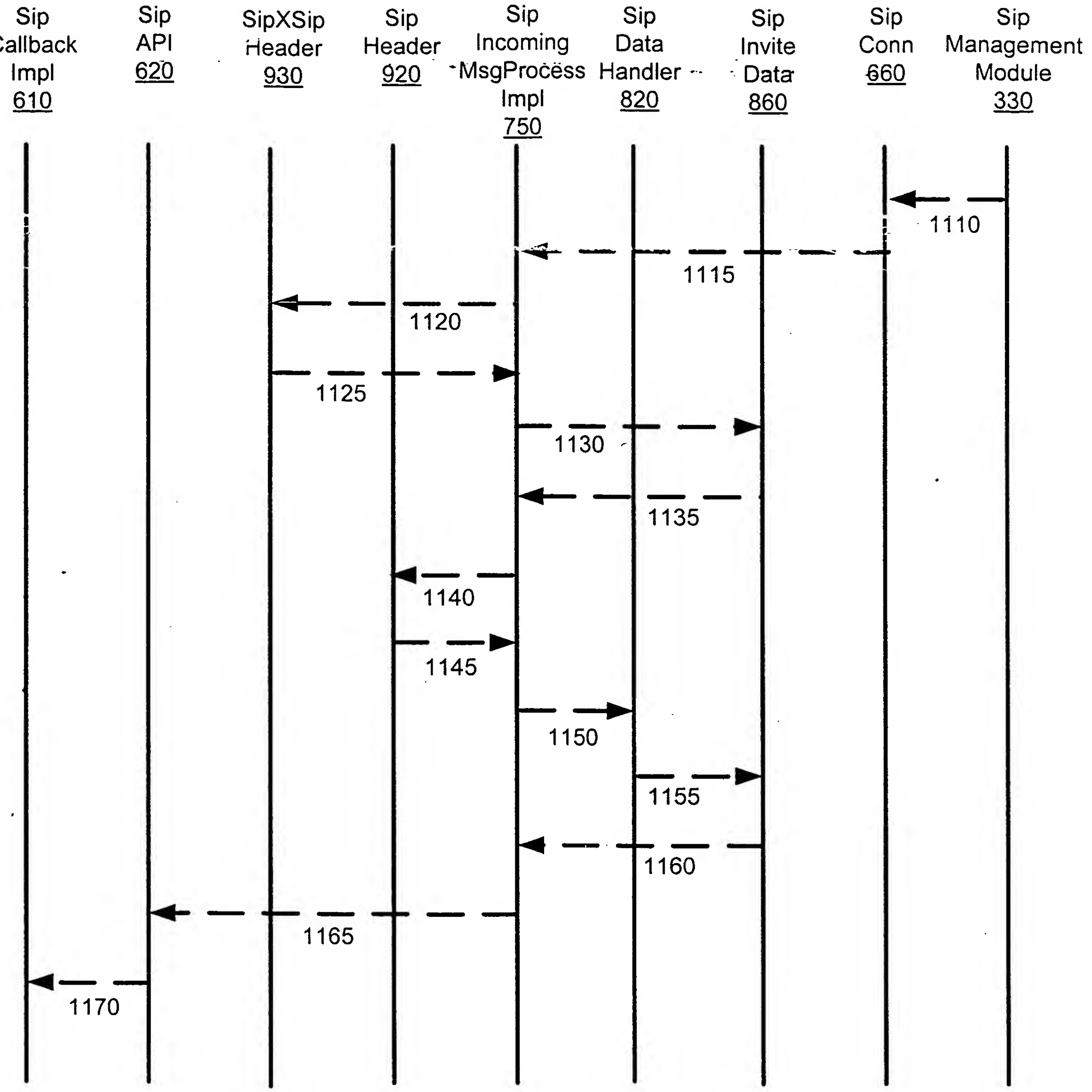

Figure 11

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Figure 12
11119 RR

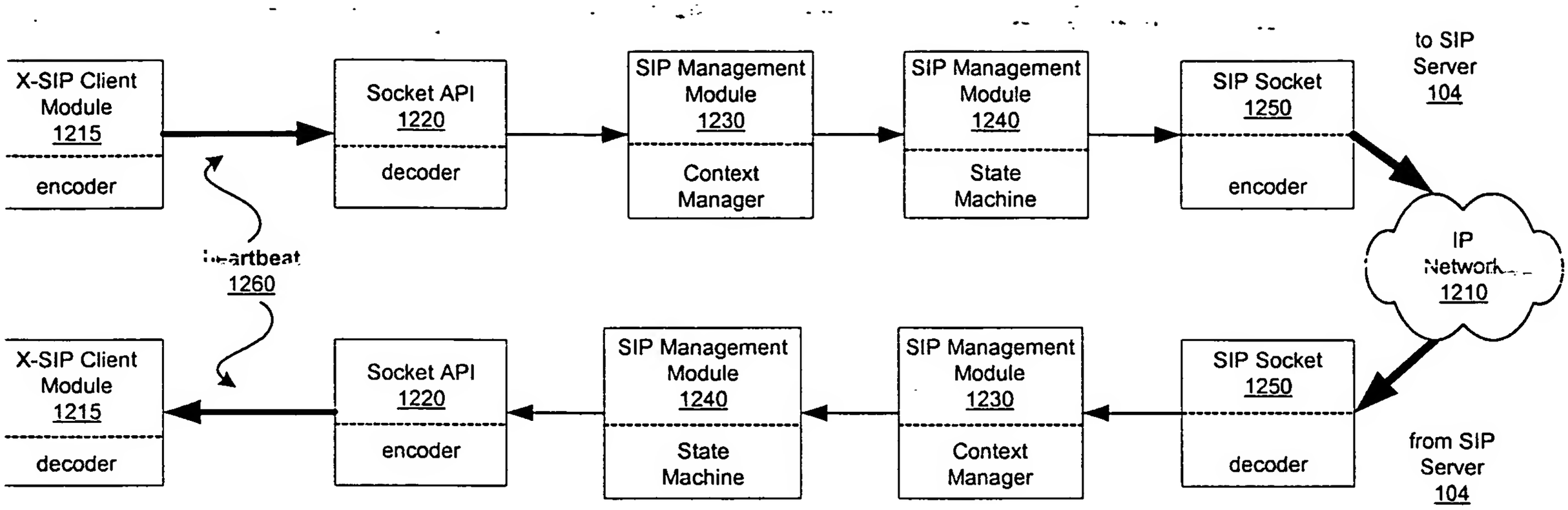

Figure 13
11119 RR
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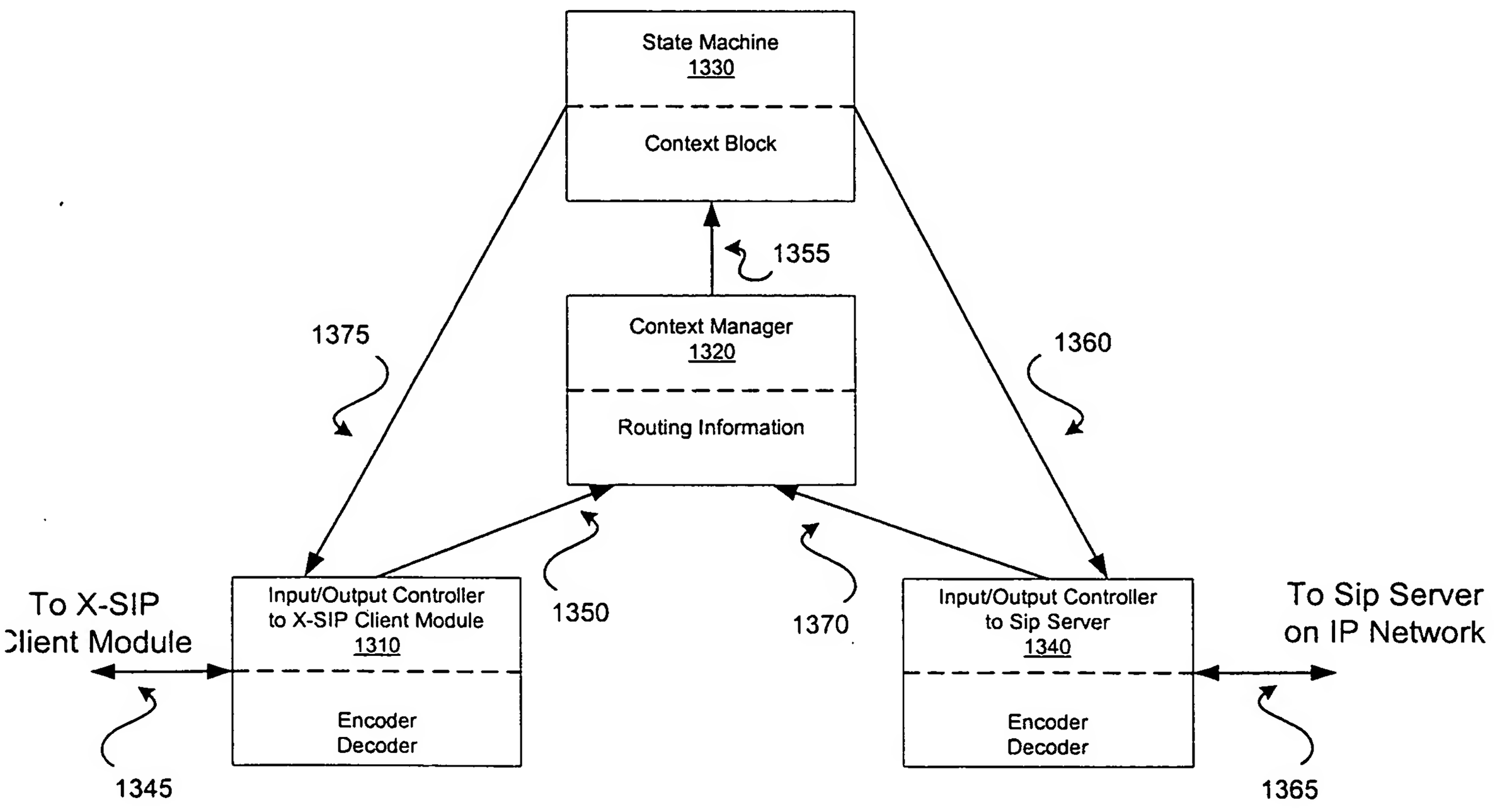
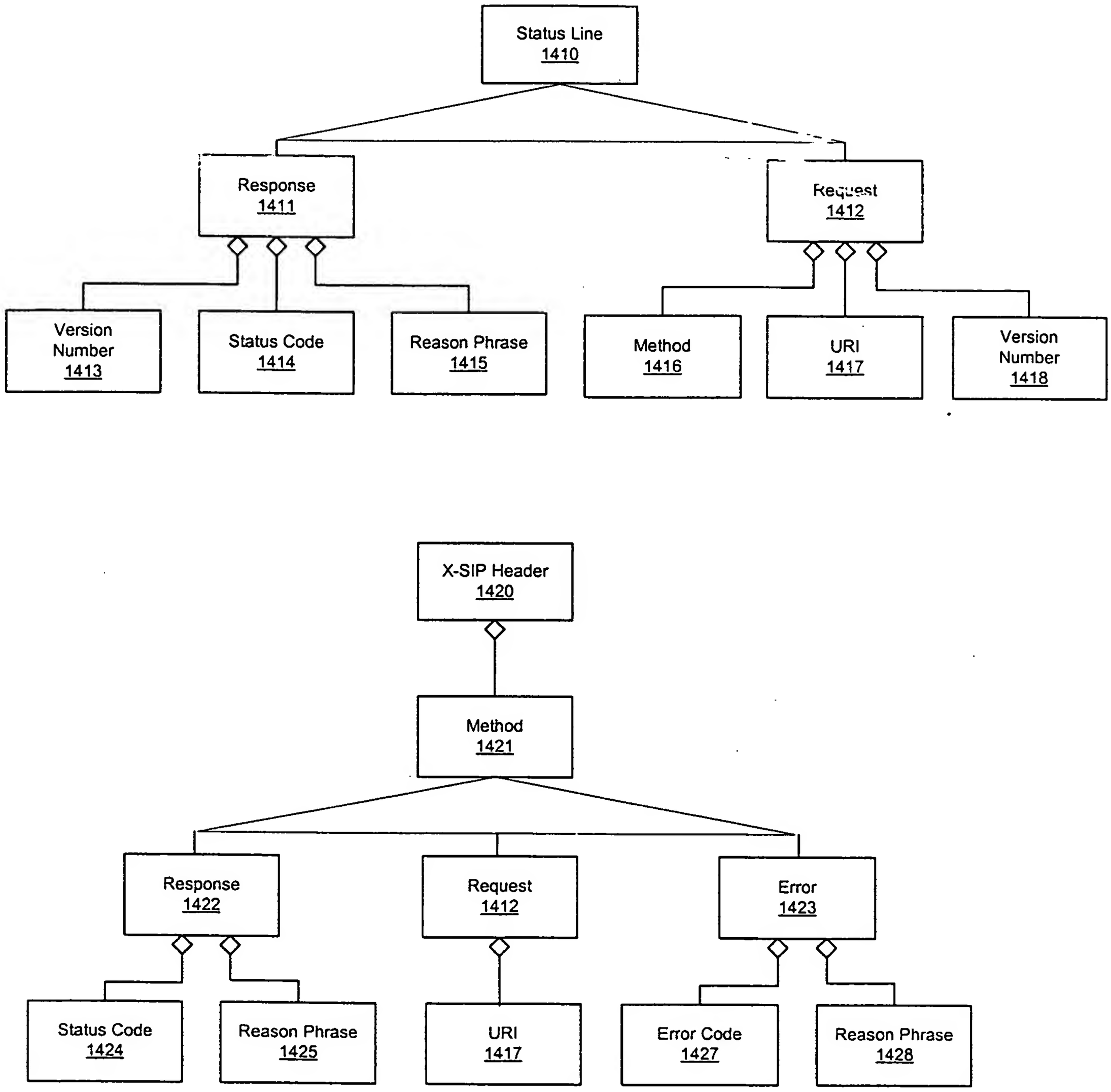


Figure 14


Status Line
1410
Response
1411
Version Number
1413
Status Code
1414
Reason Phrase
1415
Request
1412
Method
1416
URI
1417
Version Number
1418
X-SIP Header
1420
Method
1421
Response
1422
Status Code
1424
Reason Phrase
1425
Request
1412
URI
1417
Error
1423
Error Code
1427
Reason Phrase
1428